### Metal Sintered Blades Standard Sizes

<table>
<thead>
<tr>
<th>Blade O.D.</th>
<th>Blade I.D.</th>
<th>Blade Thickness</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.500</td>
<td>2.500</td>
<td>±0.0030</td>
</tr>
<tr>
<td>2.650</td>
<td>2.650</td>
<td>±0.0030</td>
</tr>
<tr>
<td>2.800</td>
<td>2.800</td>
<td>±0.0030</td>
</tr>
<tr>
<td>3.000</td>
<td>3.000</td>
<td>±0.0030</td>
</tr>
</tbody>
</table>

### Metal Sintered Blades

- **Highly versatile blades for a variety of soft and hard material applications**
- **High precision dicing**
- **Highly accurate blade dimensions**
- **Less wear/higher blade life**
- **The widest variety of matrixes for a broad range of applications**
- **A Comprehensive Dicing Solution**
- **Attractive cost-of-ownership**

### Metal Sintered Blades Part Number Description

#### BLADE O.D.

- **2.000**
- **2.250**
- **2.500**
- **2.650**
- **2.800**
- **3.000**

#### BLADE I.D.

- **2.000**
- **2.250**
- **2.500**
- **2.650**
- **2.800**
- **3.000**

#### BLADE THICKNESS

- **±0.0030"**
- **±0.0020"**
- **±0.0015"**
- **±0.0010"**
- **±0.0007"**
- **±0.0005"**

### TOLERANCE

- **THICKNESS**
  - ±0.0030"
  - ±0.0020"
  - ±0.0015"
  - ±0.0010"
  - ±0.0007"
  - ±0.0005"

### Metal Sintered Blades

- **Other thickness options, diameters, edge geometries and diamond grit size are available upon request.**
- **Depends on blade thickness and diamond grit size**
- **Depends on diamond grit size**

### Example Part Number

- **±0.0002"**

---

**Notices:**

- **BLADE O.D.**
  - Depending on blade O.D.
  - XX product family
  - 0.0050” - 0.0040”
  - 0.0600”

- **GRIT SIZE**
  - 120 - I

- **TOLERANCE**
  - Thickness
    - ±0.0003
  - B
    - ±0.0005
  - C
    - ±0.0002
  - D
    - ±0.0001

- **EXAMPLE PART NUMBER**
  - ±0.0002”

---

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### Metal Sintered Blades Standard Sizes

<table>
<thead>
<tr>
<th>BLADE O.D.</th>
<th>BLADE I.D.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>4.000</strong></td>
<td><strong>2.750</strong></td>
</tr>
<tr>
<td><strong>4.000</strong></td>
<td><strong>2.500</strong></td>
</tr>
<tr>
<td><strong>4.000</strong></td>
<td><strong>2.362</strong></td>
</tr>
<tr>
<td><strong>4.000</strong></td>
<td><strong>2.283</strong></td>
</tr>
<tr>
<td><strong>4.000</strong></td>
<td><strong>2.250</strong></td>
</tr>
<tr>
<td><strong>3.500</strong></td>
<td><strong>2.250</strong></td>
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<tr>
<td><strong>3.250</strong></td>
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<td><strong>2.250</strong></td>
</tr>
<tr>
<td><strong>2.000</strong></td>
<td><strong>2.250</strong></td>
</tr>
</tbody>
</table>

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**Please note:** Other diameters, grit sizes and thickness options are available upon request.

After you have determined (using the chart above) that your blades’ O.D., I.D., thickness and grit size are available, please refer to the Metal Sintered Blades Part Number Description table for ordering information.

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**Design:** STUDIO BAHIR

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A WIDE SELECTION OF BLADES FOR A VARIETY OF DICING APPLICATIONS

- Highly versatile blades for a variety of soft and hard material applications
- Highly accurate blade dimensions
- Less wear/higher blade life
- Attractive cost-of-ownership

---

**ADT = Dicing**

---

A Comprehensive Dicing Solution

- The widest variety of matrices for a broad range of applications
- Less wear/higher blade life
- Highly accurate blade dimensions
- High precision dicing
- Attractive cost-of-ownership

---

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A wide selection of annular blades

Our blade selection is comprised of three product families distinguished by the type of binder: Resin-bond Blades, Nickel-bond Blades and Metal-bond (Sintered) Blades. Nickel-bond and Metal-bond blades are sintered blades characterized by long blade life and endurance, while Resin-bond Blades wear off faster and create less heat & friction. Resin-bond Blades are therefore best suited for hard and brittle materials such as alumina, glass and quartz, whereas Nickel-bond and Metal-bond (Sintered) Blades are an excellent choice for softer materials/susubrates such as PCB, Silicon and BGA.

30 years of experience in tailoring solutions to specific applications

ADT’s Dicing Saw, the NextStep Laser Scriber System, Annular Blades and Periphery Equipment manifest a wealth of dicing know-how and expertise accumulated over three decades. We offer our customers a comprehensive solution - a unique blend of research, development, process mastery and skill.

State-of-the-Art Manufacturing Technology

Our blades are composed of abrasive materials embedded in a resin or metal matrix, Resin-bond Blades are cured under pressure and high temperature, Metal-bond Blades are sintered and Nickel-bond Blades are manufactured using a tightly controlled electroforming process.

The highest standards of quality assurance & process control

Strict monitoring at each critical stage of the production process ensures that each ADT Blade meets the desired specifications and dimensional tolerances. Our blades are tested extensively on the latest platforms, simulating the customer’s operating conditions and process parameters.

“FAST” and Easy Blade Selection

There is nothing trivial about choosing the right blade composition for your process. The task requires taking into consideration: geometry, diamond size & concentration, binder hardness and many more variables. With our Selection Tool, you can enjoy the benefit of our 30 years of process experience. Our “FAST” will walk you through the selection process taking your particular requirements into consideration and producing an educated ADT recommendation for a first trial part number. In addition, as always, our engineers are available to assess your needs and assist you in the blade selection process.

Contact information is available on ADT website.

Attractive cost-of-ownership

By continuously lowering the cost of manufacturing, improving the quality and longevity of our products and maintaining a competitive, premium pricing policy, we lower the total cost-of-ownership and add value to your dicing operation.

Highly versatile blades for a variety of soft and hard material applications

In a unique, close-mold sintering process, diamond grit size, diamond concentration and metal binder are optimized to meet the precision and blade life requirements of your specific application. The metal binder provides a very stable, stress-free blade matrix and can be custom tailored to meet the required hardness and low resistance for dicing a variety of applications.

With slower wear rate than Resin but faster than Nickel, Metal-bond (Sintered) Blades are best suited for retaining package shape and size in applications such as:

- Glass
- Communication
- Optical Sensors
- Magnetic Heads
- MEC
- QFN
- Copper + Epoxy Molding

These improvements provide:
- Exceptionally long blade life
- Superior cut quality
- Attractive cost-of-ownership

Technology for Thin blade

Keeping our commitments to constantly improve our products and our customers’ CoO, ADT is introducing the latest technology for manufacturing thin blades at the range of 50 - 100µm thickness. This new technology is designed to meet the strict requirements of perpendicularity, quality and package size at high feed rates.

These thin blades family is designed for Glass and soft Ceramic applications.

Dicing results of 300mm Ø Image Sensor wafer with 48µm blade thickness at cut speed of 6mm/sec:

NEW!

Matrix “A” for dicing BGA application

As part of ADT commitment for ongoing improvement, we would like to introduce our new matrix “A” for various BGA applications. The unique proprietary of matrix composition, provides a significant lower radial wear, maintaining a stable package size.

These improvements provide:
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- Superior cut quality
- Attractive cost-of-ownership

Metal Sintered Blades

Metal Sintered Blades

NEW!
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Strict monitoring at each critical stage of the production process insures that each ADT blade meets the desired specifications and dimensional tolerances. Our blades are tested extensively on the latest platforms, simulating the customer’s operating conditions and process parameters. A 100% final inspection is conducted on all products leaving the factory.

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There is nothing trivial about choosing the right blade composition for your process. The task requires taking into consideration: geometry, diamond size & concentration, binder hardness and many more variables. With our Selection Tool, you can enjoy the benefit of our 30 years of process experience. Our “FAST” will walk you through the selection process taking your particular requirements into consideration and producing an educated ADT recommendation for a first trial, part number. In addition, as always, our engineers are available to assist you in the blade selection process. Contact information is available on ADT’s website.

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- Glass
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Metal Sintered Blades

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Dicing results of 300mm Ø Image Sensor wafer with 48µm blade thickness at cut speed of 6mm/sec:

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Application | Recommended Grit Size
---|---
BGA Film and Resin | 35 µm, 40 µm, 45 µm, 50 µm, 55 µm
Magnetic Heads T1C | 3-6 µm, 10 µm, 17 µm
Optical Sensors, Communication Glass | 10 µm, 15µm, 17 µm, 20 µm, 25 µm, 30 µm, 45 µm
MEC Alumina, LTCC | 17 µm, 20 µm, 25 µm, 30 µm, 35 µm
QFN Copper + Epoxy Molding | 40 µm, 45 µm, 50 µm
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Keeping our commitments to constantly improve our products and our customers’ CoO, ADT is introducing the latest technology for manufacturing thin blades at the range of 50um at high feed rate. This new technology is designed to meet the strict requirements of perpendicularity, quality and package size at the lowest cost.

These thin blades family is designed for Glass and soft Ceramic applications.

Dicing results of 300mm Ω Image Sensor wafer with 48µm blade thickness at cut speed of 6mm/sec:

- Based on the blade performance, the new thin blades design provides a 25% improvement in wear, maintaining a stable package size.

- The new blades design is optimized to meet the precision and blade life requirements of many more applications.

- These improvements provide:
  - Exceptionally long blade life
  - Superior cut quality
  - Attractive cost-of-ownership

NEW! Technology for Thin blade

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